

CLAIMS

1. A method for managing information comprising:  
5 providing a plurality of monitoring agents for monitoring components of a network,  
each monitoring agent receiving events of a select type from the network components and  
resolving such events into alarms;

transmitting the alarms from all monitoring agents to a common management agent,  
which resolves the alarms to produce correlated alarms; and

10 transmitting the correlated alarms to a common service level management agent to  
reason across the network as to causes of the events.

2. The method according to claim 1, wherein the monitoring, common  
management, and service level management agents comprise reasoning agents:

3. The method according to claim 1, further comprising:  
relating component information to a service upon which a business process depends,  
the component information representing operational data of one or more monitored  
components;

20 determining a state of the business process based upon the component information,  
wherein the component information determines a measured level of service and wherein the  
level of service affects the operation of the business process; and

reporting, to a user, information regarding at least one of a group including  
availability, faults, configuration, integrity, security, reliability, performance and accounting  
25 of the measured level of service.

4. The method according to claim 3, further comprising determining service  
parameters to measure the level of service.

30 5. The method according to claim 4, further comprising representing the  
component information by one or more component parameters and wherein the component  
parameters are mapped into the service parameters.

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6. The method according to claim 5, further comprising determining whether service levels are satisfied by comparing service parameters with predetermined service levels.

5           7. A method of multilevel, multidomain alarm-to-service mapping comprising:

(a) conducting intradomain event correlation at a first level, wherein:

          input events are received by a monitor provided for each

domain;

          instructions provide control for each domain; and

10           input events are interpreted and correlated for each domain;

(b) conducting intradomain alarm-to-service mapping at a second level,

          wherein:

          input events are received by a monitor provided for each

domain;

          instructions provide control for each domain; and

          input events are interpreted and correlated for each domain; and

15           (c) conducting interdomain alarm correlation at a third level, wherein:

          input events are received by a monitor provided for each

domain;

          instructions provide control for each domain; and

20           input events are interpreted and correlated across multiple

          domains.

25           8. A multilevel architecture for service level management of a network, the

architecture performing a method comprising:

          providing a reactive level for monitoring components in the network for

providing service level management; and

          providing a next higher level of a more deliberative decision-making for

providing service level management.

30           9. The multilevel architecture according to claim 8, further comprising a step of

providing a proactive level for monitoring components, wherein the proactive level provides

automatic actions in response to monitored component data, the proactive level providing service level management operations for the network.

10. The multilevel architecture according to claim 8, further comprising receiving,  
5 by the reactive level, component parameters from the components, and relating the component parameters to one or more services that affect a business process.

11. The multilevel architecture according to claim 10, wherein the component  
10 parameters are related by at least one of a group of levels including the reactive level, next higher level, and proactive level.

12. A system for managing a network comprising:  
an agent operable to receive operational data from at least one component of the  
network, the at least one component being related to a service on which a business process  
15 depends; and  
a correlator operable to determine a state of the business process based upon the  
operational data, wherein the operational data of the component determines a measured level  
of service and wherein the level of service affects the operation of the business process.

20 13. The system according to claim 12, further comprising an interface that is configured to indicate to a user, information regarding at least one of a group including availability, faults, configuration, integrity, security, reliability, performance and accounting of the measured level of service.

25 14. The system according to claim 12, wherein the correlator monitors service parameters to determine the measured level of service.

30 15. The system according to claim 14, wherein the operational data are represented by one or more component parameters and wherein the component parameters are mapped into the service parameters.

16. The system according to claim 15, wherein the correlator determines whether service levels are satisfied by comparing service parameters with predetermined service levels.

5 17. A system for managing a network comprising:  
one or more agents operable to receive operational data from at least one component of the network, the at least one component being related to a service on which a business process depends, wherein the agent is configured to determine a state of the business process based upon the operational data, wherein the operational data of the component determines a  
10 level of service, and wherein the level of service affects the operation of the business process.

18. The system according to claim 17, further comprising an interface that is configured to indicate to a user, information regarding at least one of a group including faults, configuration, security, accounting, and performance of the measured level of service.

15 19. The system according to claim 17, wherein the agent monitors service parameters to measure the level of service.

20 20. The system according to claim 19, wherein the operational data are represented by one or more component parameters and wherein the component parameters are mapped into the service parameters.

25 21. The system according to claim 20, wherein the agent determines whether service levels are satisfied by comparing service parameters with predetermined service levels.

30 22. A method comprising:  
providing a plurality of monitoring agents for monitoring components of a network, each monitoring agent receiving events of a select type from the network and resolving such events into alarms;

transmitting the alarms from all agents to a common management agent, which resolves the alarms to produce correlated alarms; and

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